

REMARKS/ARGUMENTS

The undersigned greatly appreciates the courtesies extended by Examiner Ula Ruddock during the personal interview with the inventor Andrew Park at the U.S. Patent and Trademark Office on March 28, 2006. During the interview, a proposal was made to amend base Claims 1 and 13 by adding certain thickness and weight limitations—namely, that the rigid facing and fabric backing have a combined thickness of less than 0.900-inches, and an *areal density* of no more than 5.1 pounds per square foot. The term "areal density" as used in the ballistics industry refers to the weight of the armor composite divided by its protection area. Support for the proposed amendment is provided in the specification at ¶035, and by original dependant Claims 11, 12, 18, and 19 (cancelled herein).

Claims 1-20 in the case are pending. Claims 1-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 13-18 and 20 of copending Application No. 10/664,233. A Terminal Disclaimer addressing this grounds of rejection is submitted with the present response.

Claims 13-20 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out the distinctly claim the subject matter which applicant regards as the invention. Claims 1-5 and 7-20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Park (US 5,635,288) in view of Henderson (US 2001/0053645). Claim 6 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Park (US 5,635,288) in view of Henderson (US 2001/0053645) and further in view of Klintworth et al. (US 2003/0139108).

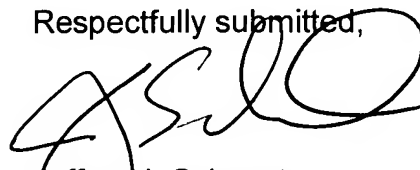
As indicated above, base Claims 1 and 13 in the application have been amended to state that the rigid facing and fabric backing have a combined thickness of less than 0.900-inches, and an *areal density* of no more than 5.1 pounds per square foot. Applicant respectfully submits that the present hard armor composite is not disclosed, taught, or suggested in the art cited.

Advantages of the present composite in ballistic applications include its relatively thin profile, light weight, and high performance. In order to meet prescribed performance criteria, conventional teachings call for use of a relatively heavy or thick fabric backing combined with a relatively heavy or thick rigid facing. In the present composite, Applicant deviates from this conventional teaching by utilizing a relatively lightweight fabric with a denier per filament ratio of less than 5.4. Applicant combines this lighter fabric backing with a rigid facing in a hard armor composite having an areal density of no more than 5.1 psf—yet offering substantial ballistic performance. The resulting composite represents an improvement over existing hard armor composites, and satisfies the industry's need for a thinner, lighter weight product with high ballistic performance capability.

The inventor's prior issued patent (Park '288) describes a hard armor composite which in certain embodiments incorporates a low denier per filament fabric. Mr. Park developed this composite construction many years ago without specific regard to thickness, critical weight (areal density), and a prescribed level of ballistic performance. Indeed, the present invention is not simply the combination of a lightweight fabric and rigid facing. Applicant respectfully submits that the teaching of Park '288 does not render obvious the construction of a hard armor composite incorporating a rigid facing and fabric backing with a combined thickness of less than 0.900-inches, an areal density not greater than 5.1 psf, and an increased level of ballistic performance.

For all these reasons discussed above, Applicant submits that all of the claims in the case are now in condition for allowance. Such action is therefore respectfully requested at an early date. If the Examiner believes that issues remain for discussion, she is invited to contact the undersigned at the telephone number indicated below.

Respectfully submitted,



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